EXHIBIT 6

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

IN RE ASACOL ANTITRUST LITIGATION	Civil Action No. 1:15-cv-12730 (DJC)

DECLARATION OF MEREDITH ROSENTHAL
IN RESPONSE TO DEFENDANTS' JOINT MOTION
TO COMPEL PRODUCT MARKET DISCOVERY

EXECUTIVE SUMMARY

I have been retained by counsel for both the Direct Purchaser Class Plaintiffs ("DPPs") and End Payor Class Plaintiffs ("EPPs")[1] of Asacol to opine on whether or not the defendants' request for discovery materials in their November motion[2] is relevant to the determination of market definition in this matter. I have reviewed the request and reached the conclusion that these materials are not, in fact, relevant or useful for any expert to apply standard and scientifically accepted methods of market definition. This declaration discusses the relevant issues and the specific reasons for my conclusion.

I. QUALIFICATIONS

1. My name is Meredith Rosenthal. I am a Professor of Health Economics and Policy at the Harvard School of Public Health and an Academic Affiliate of Greylock McKinnon Associates ("GMA"), a consulting and litigation support firm. My principal research interests concern the economics of the health care industry.

2. At Harvard, I have taught in undergraduate, Masters- and Ph.D.-level health economics and health policy courses. Since 1996, I have worked on a number of consulting matters through GMA, most of which relate to litigation in health care markets generally and the pharmaceutical industry in particular. I have submitted written and in some cases presented oral testimony in litigation concerning allegations of improper marketing of the following prescription drugs:

[1] *In re Asacol Antitrust Litigation* (relating to all actions), Civil Action No. 1:15-cv-12730 (DJC).

[2] Memorandum of Law in Support of Defendants' Motion to Compel Product Market Discovery, *In re Asacol Antitrust Litigation* (relating to all actions), United States District Court for the District of Massachusetts, Civil Action No. 1:15-cv-12730 (DJC), November 11, 2016 (hereafter "Defendants' Memorandum").

Actiq,[3] Bextra,[4] Celexa and Lexapro,[5] Bextra, Geodon, Lyrica and Zyvox,[6] Geodon,[7] Ketek,[8] Lupron,[9] Neurontin,[10] Nexium,[11] Premarin, Prempro and Premphase,[12] Risperdal,[13] Rituxan,[14] Vioxx[15] and Zyprexa.[16] I have submitted written testimony in litigation concerning alleged

[3] *In re: Actiq Sales and Marketing Practices Litigation*, United States District Court for the Eastern District of Pennsylvania, No. 07-CV-4492.

[4] *In re: Bextra Marketing Sales Practices and Product Liability Litigation*, United States District Court for the Northern District of California, MDL No. 1699, No. M:05-CV-01699-CRB.

[5] *In re: Celexa and Lexapro and Sales Practices Litigation*, United States District Court for the District of Massachusetts, Case No. 09-MD-2067 (NMG); MDL No. 2067.

[6] *Mary K. Jones v. Pfizer Inc., et al.*, United States District Court for the Southern District of New York, Civil Action No. 1:10-cv-03864-AKH.

[7] *In re United States of America v. Pfizer, Inc.*, United States District Court for the District of Massachusetts, Case No. 1:10-CV-11166-DPW.

[8] *Sergeants Benevolent Association Health and Welfare Fund v. Sanofi-Aventis U.S. LLP*, United States District Court for the Eastern District of New York, No. 08-CV-179.

[9] *In re: Lupron Marketing and Sales Practices Litigation*, United States District Court for the District of Massachusetts, MDL No. 1430, No. 01-CV-10861.

[10] *In re: Neurontin Marketing and Sales Practices Litigation*, United States District Court for the District of Massachusetts, MDL No. 1629, No. 04-10981; *Gregory Clark and Linda Meashey v. Pfizer Inc., and Warner-Lambert Company, LLC*, Philadelphia County Court of Common Pleas, No. 1819; *Elizabeth Judy and Stephen Brown v. Pfizer, Inc. individually and as successor in interest to Parke-Davis and Warner-Lambert, Inc.*, Circuit Court of the City of St. Louis, State of Missouri, Cause No. 042-01946, Division No. 1; and *In re: Neurontin Marketing and Sales Practices Litigation*, as it relates to: *Kaiser Foundation Health Plan v. Pfizer, Inc.*, United States District Court for the District of Massachusetts, MDL No. 1629, No. 04-10981-PBS, No. 04-10739-PBS.

[11] *Commonwealth Care Alliance and Glen Crenshaw v. AstraZeneca Pharmaceuticals L.P. and Zeneca Holdings, Inc.*, Commonwealth of Massachusetts, Superior Court, Trial Court Department, No. 05-CV-0269 BLS.

[12] *Krueger v. Wyeth, Inc.*, United States District Court for the Southern District of California, Civil Action No. 03CV2496 JAH (AJB).

[13] *Charles Foti, Attorney General ex rel. State of Louisiana v. Janssen Pharmaceutica, Inc.*, 27th Judicial District Court, Parish of St. Landry, No. 04-C-3967-D and *The State of Texas, ex rel. Allen Jones v. Janssen, L.P.*, District Court, 250th Judicial District, Travis County, Texas, No. D-1GV-04-001288.

[14] *United States ex rel. John Underwood v. Genentech, Inc.*, United States District Court for the Eastern District of Pennsylvania, No. 03-CV-3983.

[15] *Kleinman v. Merck & Co.*, No. ATL-L-3954-04 and *Martin v. Merck & Co.*, No. ATL-L24-05, Superior Court of New Jersey, Law Division, Camden County.

[16] *In re: Zyprexa Products Liability Litigation*, United States District Court for the Eastern District of New York, MDL No. 1596, Civil Action No. 05-CV-4115. I also submitted testimony in related state matters.

foreclosure of generic entry for the following drugs: Augmentin,[17] AndroGel,[18] Prograf,[19] Wellbutrin SR,[20] Wellbutrin XL,[21] Flonase,[22] Nexium,[23] Skelaxin[24] and Solodyn.[25] I have submitted written and presented oral testimony in litigation alleging the fraudulent use of list prices (AWP) in pharmaceutical pricing.[26] In addition, I have consulted to GMA on litigation in other pharmaceutical matters, such as litigation related to the following drug products: K-Dur, Cardizem CD, Hytrin, BuSpar, Relafen, Cipro, lorazepam and clorazepate, and Taxol.[27]

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[17] *In re: Augmentin Antitrust Litigation*, United States District Court for the Eastern District of Virginia, No. 02-CV-442.

[18] *Health Net, Inc. v. Solvay Pharmaceuticals, Inc. and Unimed Pharmaceuticals, Inc*., United States District Court for the Northern District of Georgia, Atlanta Division, Civil Action No. 1:11-CV-0334.

[19] *In re: Prograf Antitrust Litigation*, United States District Court for the District of Massachusetts, MDL No. 2242, Master File No. 1:11-CV-2242-RWZ.

[20] *In re: Wellbutrin SR Antitrust Litigation*, United States District Court for the Eastern District of Pennsylvania, Civil Action No. 04-CV-5898.

[21] *Plumbers and Pipefitters Local 572 Health and Welfare Fund, et. al. v. Biovail Corporation, Biovail Laboratories, Inc., Biovail Laboratories International SRL, and Smithkline Beecham D/B/A Glaxosmithkline, PLC*, United States District Court for the Eastern District of Pennsylvania, Civil Action No. 08-CV-2433-MAM.

[22] *American Sales Company, Inc. v. Smithkline Beecham Corporation D/B/A GlaxoSmithKline, Plc.*, United States District Court for the Eastern District of Pennsylvania, Civil Action No. 2:08-CV-03149.

[23] *In re: Nexium (esomeprazole) Antitrust Litigation*, United States District Court for the District of Massachusetts, MDL No. 2409, Civil Action No. 112-CV-11711 and *In re: Nexium (esomeprazole) Antitrust Litigation*, United States District Court for the District of Massachusetts, MDL No. 2406, Civil Action No. 1:12-md-2409-WGY.

[24] *In re: Skelaxin (Metaxalone) Antitrust Litigation*, The United States District Court for the Eastern District of Tennessee, Lead No. 2:12-CV-83, MDL. No. 2343

[25] *In re: Solodyn (Minocycline Hydrochloride) Antitrust Litigation* (relating to all actions), MDL No. 2503, 1:14-MD-2503-DJC.

[26] *In re: Pharmaceutical Industry Average Wholesale Price Litigation,* United States District Court for the District of Massachusetts, MDL, No. 1456, Civil Action No. 01-CV-12257-PBS.

[27] *In re: K-Dur Antitrust Litigation*, United States District Court for the District of New Jersey, Civil Action No. 01-1652 (JAG), (Consolidated Cases), MDL No. 1419; *In the Matter of Hoechst Marion Roussel, Inc., Carderm Capital L.P., and Andrx Corporation*, United States of America Before Federal Trade Commission, Docket No. 9293; *In re Terazosin Hydrochloride Antitrust Litigation*, United States District Court for the Southern District of Florida, No. 99-MDL-1317 Seitz/Garber; *In re: Buspirone Antitrust Litigation*, United States District Court for the Southern District of New York, MDL No. 1413; *In re Relafen Antitrust Litigation,* United States District Court for the District of Massachusetts, Master File No. 01-CV-12222-WGY; *In re Ciprofloxacin Hydrochloride Antitrust Litigation*, United States District Court for the Eastern District of New York, Master File No. 1:00-MD-1383; *In re Lorazepam and Clorazepate Antitrust Litigation*, United States District Court for the District of Columbia, MDL No. 1290; and *HIP Health Plan of Florida, Inc., on Behalf of Itself and All Others Similarly Situated v. Bristol-Myers Squibb Co. and American Bioscience*, United States District Court for the District of Columbia, Civil Action No. 1:01CV01295.

3. I have offered opinions on market definition, market power and relevant markets several times.[28] To my knowledge, my opinions in these matters have never been rejected by the court. I testified at trial in the Nexium matter regarding market definition before Judge Young in the District of Massachusetts.

4. I have conducted research on a wide variety of health economics topics, with a focus on the financing and organization of the U.S. health care system. Specific topics I have studied include the effect of payment incentives on provider behavior,[29] payment and delivery system reform,[30] and advertising of prescription drugs.[31] I have published numerous peer-reviewed journal articles, essays, and book chapters.

5. I received an A.B. in International Relations from Brown University in 1990 and a Ph.D. in Health Policy (Economics Track) from Harvard University in 1998. A more complete description of my qualifications is found in my *Curriculum Vitae*, which is included as Attachment A to this Declaration.

6. The consulting company that I am affiliated with, Greylock McKinnon Associates (GMA), is currently compensated at a rate of $650 per hour for my time. I received assistance with the preparation of this report from other professionals at GMA with rates that range from $225 to $675 per hour. The compensation due to GMA is for the work performed and it is not

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[28] See cases identified in footnotes 18, 21, 23 and 25 above.

[29] See M. Rosenthal, "Risk Sharing and the Supply of Mental Health Services," *Journal of Health Economics*, 19(6), November 2000, pp. 1047-65; M. Rosenthal, R. Frank, Z. Li, and A. Epstein, "From Concept to Practice: Early Experience with Pay-for-Performance," *JAMA*, 294(14), October 2005, pp. 1788-93; and M. Rosenthal, Z. Li, A. Robertson, and A. Milstein, "Impact of Financial Incentives for Prenatal Care on Birth Outcomes and Spending," *Health Services Research*, 44(5 Pt 1), October 2009, pp. 1465-79.

[30] See M. Rosenthal, "Beyond Pay for Performance: Emerging Models of Provider-Payment Reform," *New England Journal of Medicine*, 359(12), September 2008, pp. 1197-1200; M. Rosenthal, M. Friedberg, S. Singer, D. Eastman, Z. Li, and E. Schneider, "Effect of a Multipayer Patient-Centered Medical Home on Health Care Utilization and Quality: The Rhode Island Chronic Care Sustainability Initiative Pilot Program," *JAMA Internal Medicine*, September 2013, PMCID: 24018613; and S. Edwards, M. Abrams, M. Rosenthal, *et al.*, "Structuring Payment to Medical Homes After the Affordable Care Act," *Journal of General Internal Medicine*, 2014, PMCID: 417661.

[31] M. Rosenthal, *et al.*, "Promotion of Prescription Drugs to Consumers," *New England Journal of Medicine*, 346(7), February 2002, pp. 498-505; M. Rosenthal, *et al*., "Demand Effects of Recent Changes in Prescription Drug Promotion," *Forum for Health Economics & Policy*, 6(1), January 2003, pp. 1-26; M. Mello, M. Rosenthal, and P. Neumann, "Direct-to-Consumer Advertising and Shared Liability for Pharmaceutical Manufacturers," *JAMA*, 289(4), January 2003, pp. 477-81; J. Donohue, E. Berndt, M. Rosenthal, A. Epstein, and R. Frank, "Effects of Pharmaceutical Promotion on Adherence to the Treatment Guidelines for Depression," *Medical Care*, 42(12), December 2004, pp. 1176-85.

contingent upon my opinions, my conclusions, or the outcome of this matter. The opinions I state in this report are stated within a reasonable degree of professional certainty. I reserve the right to respond to, rebut, opine on, or incorporate any opinions offered by other experts in this case.

II. BACKGROUND, SUMMARY OF ASSIGNMENT

7. I have been asked by counsel for the DPPs and EPPs in this matter to review and to comment on the defendants' memorandum of law to compel discovery from selected Plaintiffs.[32] I have been asked to conduct my review of the content of the memorandum with the primary purpose of determining whether the information sought by the defendants is relevant for an economist to draw meaningful conclusions regarding the definition of the antitrust market relevant for proper analysis of the unlawful conduct alleged in this matter. The motion asks the Court to compel plaintiffs to produce materials relating to nine ulcerative colitis drugs in addition to Asacol, Asacol HD and Delzicol.[33]

8. Having reviewed the motion to compel, the facts and allegations in this matter, and the information used to properly identify and measure the scope of a relevant antitrust market, I conclude that the materials subject to the motion are irrelevant to a determination of the antitrust market relevant to the unlawful conduct alleged in this matter.

III. MARKET-WIDE ANALYSIS IS NECESSARY FOR THE DETERMINATION OF A RELEVANT ANTITRUST MARKET

9. The correct definition of the boundaries of an antitrust market relevant to the analysis of any specific economic activity or arrangement (*e.g.*, a merger, an agreement to forestall entry, a price-fixing conspiracy, an alleged monopolization, etc.) requires a careful investigation into product substitution and product switching at the level of the entire market. Market-wide data are necessary because the behavior of individual market participants cannot be used to measure the extent to which substitution puts downward pressure on a firm's pricing strategy. It is only

[32] Defendants' Memorandum.

[33] *Ibid.*, p. 1.

by estimating aggregate patterns of substitution in the face of relative price changes that an economist can accurately describe the price responsiveness of a product in relation to others and therefore market power and market definition.

10. Defendants' motion to compel focuses upon data for *individual* entities, *not the market as a whole*. These plaintiffs do not constitute the entirety of the purchasers and sales in the antitrust market that must be defined here; they represent only a portion of the purchasers and sales. Focusing upon them alone for purposes of defining the antitrust market relevant here is insufficient, incomplete, and potentially misleading. As discussed below, the determination of the correct antitrust market must be conducted using market-wide data, such as IMS data or transactional data maintained by the defendants themselves. Such market-wide data contain the sales for each of these plaintiffs. In addition, the discovery materials from defendants will measure and quantify the amount and timing of the rebate strategies implemented for the market as a whole. Using these materials from defendants, an economist can assess the impact of these price-offset strategies upon market-wide sales quantities and prices in the context of the *Guidelines* as discussed below. Obtaining similar materials from a few market participants would be insufficient.

IV. DETERMINATION OF MARKET DEFINITION

11. As noted above, the definition of a relevant antitrust market is undertaken on a market-wide basis. Notably, it may not always be necessary to define a relevant market in order to determine whether a defendant has substantial market power as such power can be observed directly, for example through evidence of costly efforts to exclude competition or evidence of prices far above marginal costs. However, in those instances where it is necessary or appropriate to define a relevant market to evaluate market power indirectly rather than directly, it must be done using market-wide data as discussed above.

12. The primary touchstone for market definition, properly applied, is the Horizontal Merger Guidelines (the "*Guidelines*"), developed by the Department of Justice (DOJ) and the Federal

Trade Commission (FTC).[34] The *Guidelines* provide a conceptual basis for identifying the scope of markets relevant to antitrust analysis and a precise methodology for establishing the boundaries of such markets. Although they were developed for the original purpose of evaluating horizontal mergers, these guidelines correspond to generally accepted economic principles and have been applied and accepted in antitrust matters such as this one. This is because the essence of a merger is to reduce the number of independent competitors in a market. Such an economic impact can be accomplished not only through ownership but also through foreclosure. In principal, raising barriers to entry of any kind, including the misconduct alleged in this matter, could cause a reduction in competition and thereby cause prices to be above normal (competitive) levels.

13. Specifically, two products occupy the same antitrust market if the market-wide increase of the price of one of the products is constrained by consumer substitution to the other product. For example, if Producer A raises the price of its Product A by a small but significant amount above the competitive price level, say 5%, and market-wide substitution away from A to Product/Producer B makes that price increase unprofitable for A, such substitution *constrains* the pricing of A. That constraint means that B is in the same antitrust market as A. Then suppose a third product, Product C, is hypothesized to be in the same antitrust market as A and B. If, however, it is observed that an increase of the prices of Products A and B (where Producers A and B are assumed to constitute the Hypothetical Monopolist) from a competitive level by that same small but significant amount (5%) does not reduce market-wide product sales to an extent that it is unprofitable to A and B, then that third product, C, does not occupy the same antitrust market as A and B.

14. The 1992 *Guidelines* have been the basis for determination of relevant antitrust markets through their recent revision in August 2010. The analytic content and approach are substantially the same in both versions.

[34] United States Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines*, April 2, 1992, and revised August 19, 2010. I note that the *1992 Guidelines* were revised periodically between 1992 and 2010; here I cite the version revised April 8, 1997.

15. In order to define and measure the size of the antitrust market subject to scrutiny, the *Guidelines* propose the "Hypothetical Monopolist Test," which is implemented as follows:[35]

> A market is defined as a product or group of products and a geographic area in which it is produced or sold such that a hypothetical profit-maximizing firm, not subject to price regulation, that was the only present and future producer or seller of those products in that area likely would impose at least a 'small but significant and nontransitory' increase in price [SSNIP], assuming the terms of sale of all other products are held constant.
>
> [To implement this definition], the Agency will begin with each product (narrowly defined) produced or sold by each merging firm and ask what would happen if a hypothetical monopolist of that product imposed at least a 'small but significant and nontransitory' increase in price, but the terms of sale of all other products remained constant. If, in response to the price increase, the reduction in sales of the product would be large enough that a hypothetical monopolist would not find it profitable to impose such an increase in price, then the Agency will add to the product group the product that is the next-best substitute for the merging firm's product. … This process will continue until a group of products is identified such that a hypothetical monopolist over that group of products would profitably impose at least a 'small but significant and nontransitory' increase. … The Agency generally will consider ***the relevant product market to be the smallest group of products that satisfies this test***.

16. Moreover, the *Guidelines* state that "Once defined, a relevant market must be measured in terms of its participants and concentration."[36] The 1992 *Guidelines* take "small but significant" to be 5%. "Nontransitory" is usually taken to be one year.[37] The 2010 *Guidelines* likewise propose a 5% increase. This analysis is often referred to as the SSNIP test.[38]

17. The analysis and the implementation of the Hypothetical Monopolist Test, and any related analytic efforts, must be conducted *market-wide*.[39] For the simplified example above, the analysis must account for all Producers A, B, and C of Products A, B and C. Likewise, the

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[35] *1992 Guidelines*, §§ 1.0 and 1.11, emphasis added. The *2010 Guidelines* use the same Hypothetical Monopolist Test (see § 4.1.1).

[36] *1992 Guidelines*, § 1.

[37] *1992 Guidelines*, § 1.11: "In attempting to determine objectively the effect of a 'small but significant and nontransitory' increase in price, the Agency, in most contexts, will use a price increase of five percent lasting for the foreseeable future."

[38] *2010 Guidelines*, § 4.1.2: "The Agencies most often use a SSNIP of five percent of the price paid by customers for the products or services to which the merging firms contribute value."

[39] *1992 Guidelines*, § 1.3.

analysis and implementation must include the economic decisions and behavior of all purchasers/payors. Analysis of the economic behavior of some subgroup of producers and/or some subgroup of purchasers/payors will be insufficient to characterize the switching and substitution behavior of the aggregation of all market participants – the "market" as a whole. Such limited analysis may produce biased and incorrect conclusions regarding market definition.

18. As the *Guidelines* make clear, the determination of the contours of a relevant antitrust market is a data driven process. The analysis focuses on *economic* behavior. Does a change in the price of one product affect the volume of units sold of another product? If so, by how much? Wholesaler or PBM contracts, formularies, marketing plans, or anecdotal assessments of therapeutic interchangeability from a limited number of plaintiffs are insufficient to determine the market-wide effects of price changes on the quantities of potentially alternative products demanded. Aggregate data available (*e.g.*, from IMS Health) provide the types of information relied upon by economists in properly performing a relevant market analysis. Similarly, information describing the subjective views or behavior of a single or subset of market participants is not appropriate to the analytic approach the *Guidelines* require.

V. AVAILABILITY OF AGGREGATE DATA TO CHARACTERIZE THE RELEVANT MARKET

19. A rich source of aggregate data exists to address market definition (as well as impact and damages). These data contain information on the market clearing prices and quantities sold, and changes both in response to price increases and market entry (*i.e.*, the consideration of possible additional candidates for inclusion in the antitrust market). That source is the widely used data collected by IMS Health, which summarizes sales and prices at wholesale (the National Sales Perspective (NSP) data product) and at retail (the National Prescription Audit (NPA) data product).[40] These data, which leverage transactional data on the majority of pharmaceutical sales to generate market-wide estimates, are used extensively by industry participants, governmental research, academic research (including research conducted by me) and in litigation. The IMS

[40] The NSP data is a sample gathered from wholesalers and manufacturers and summarizes nearly 100% of wholesale transactions. The NPA sample data are drawn from retailers and summarize approximately 70% of all transactions.

data are considered the gold standard of data for analysis of pharmaceutical product markets. Further, these data are easily obtainable from IMS.

20. Market-wide data on manufacturer sales, discounts, rebates and coupon values are maintained by the defendants. The hypothesized impact of these economic variables on product switching and substitution can be measured and analyzed at the aggregate market wide level, which is the correct analytic platform. These data are widely used when defining the antitrust market relevant to economic conduct in pharmaceutical product markets. For market definition, these aggregate third party data may be enriched with selected relevant data and information from the defendants including, as noted above, data on rebates and discounts.

VI. CONCLUSIONS

21. Defendants' motion to compel focuses upon documents and data for *individual* entities, not the market as a whole. These plaintiffs do not constitute the entirety of the purchasers and sales in the antitrust market that must be defined here; they represent only a small portion of the purchasers and sales. Focusing upon them alone for purposes of defining the antitrust market relevant here is insufficient, incomplete, and potentially misleading. As discussed above, the determination of the correct antitrust market must be conducted using market-wide data, such as IMS data or transactional data maintained by the defendants themselves. Such market-wide data contain the sales for each of these plaintiffs. Obtaining similar materials from a few market participants simply makes no sense given that market-wide data are available. Defendants' motion to compel does not identify any economically reliable method in which the data requested from plaintiffs can be used to define a relevant antitrust market in this case, and I am not aware of any such method.

22. In conclusion, the data requested by defendants are neither useful nor sufficient for establishing market definition on a Class-wide basis in this case. The accepted methodology for analyzing market definition requires the use of market-wide data, not data for individual market entities. The same transactions that would be the subject of the data demanded by defendants are covered by market-wide data sources (such as IMS Health and the defendants' own data). These market-wide data sources include not only the data requested by defendants but also sales for the rest of the market.

Meredith Rosenthal
November 28, 2016

Attachment A

CURRICULUM VITAE

Date: November, 2016

NAME: Meredith B. Rosenthal

ADDRESS: Harvard T. H. Chan School of Public Health.
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Boston, MA 02115
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meredith_rosenthal@harvard.edu

BIRTHPLACE: Boston, Massachusetts

EDUCATION:

1990 International Relations (Commerce), A.B., Brown University

1998 Health Policy (Economics track), Ph.D., Harvard University

ACADEMIC APPOINTMENTS:

2011- Professor of Health Economics and Policy
Department of Health Policy and Management
Harvard School of Public Health

2006-2011 Associate Professor of Health Economics and Policy
Department of Health Policy and Management
Harvard School of Public Health

1998-2006 Assistant Professor of Health Economics and Policy
Department of Health Policy and Management
Harvard School of Public Health

ADMINISTRATIVE APPOINTMENTS:

2013- Associate Dean for Diversity
Harvard T. H. Chan School of Public Health

PROFESSIONAL SOCIETIES:

2014-present Elected Member, National Academy of Medicine (Institute of Medicine)

2004-present American Society of Health Economists

2000-present International Health Economics Association

1995-present AcademyHealth
Planning Committee for 2008 Annual Research Meeting

OTHER PROFESSIONAL EXPERIENCE:

1993-1994	Analyst, Health Economics Research, Inc./The Center for Health Economics Research
1990-1993	Consultant, Price Waterhouse, Tax Economics Department

SERVICE:

2013-present	Board Chair, Massachusetts Health Quality Partners
2007-present	Member, Massachusetts Public Health Council
2005	Expert Testimony, House Committee on Education and Workforce, House Subcommittee on Employer-Employee Relations, Hearing on Examining Pay-for-Performance Measures and Other Trends in Employer-Sponsored Health Care
2003	Expert Testimony, Senate Special Committee on Aging, Hearing on Direct to Consumer Advertising of Prescription Drugs: Exploring the Consequences
2001	Chair, Massachusetts Special Commission on Physician Compensation

HONORS AND DISTINCTIONS:

2006	Alfred P. Sloan Foundation Industry Studies Fellowship
2003	Labelle Lectureship in Health Policy, McMaster University
2010	Academy of Management Best Theory to Practice Paper in Health Care Management
2011	Harvard School of Public Health Teaching Citation
2014	Harvard School of Public Health Junior Faculty Mentoring Award
2015	Harvard TH Chan School of Public Health Advancement of Women Faculty Mentoring Award
2016	Harvard TH Chan School of Public Health Student Mentoring Award
2016	AcademyHealth Paper of the Year Award

MAJOR ADMINISTRATIVE RESPONSIBILITIES:

2012-2014	HSPH Faculty Council, Vice-Chair (2012)
2007-2014	HSPH Committee on Admissions and Degrees, Chair (2010)
2007	C-Chair, HSPH Child Care Task Force

2006-2011 HSPH Committee on the Concerns of Women Faculty

2000-present Executive Committee on Higher Degrees in Health Policy, Harvard University

1999-present Admissions Committee, Ph.D. Program in Health Policy, Harvard University

EDITORIAL ACTIVITIES:

2012-2015 Member, *New England Journal of Medicine*, Perspective Advisory Board

1997-present Referee: *Journal of Health Economics*, *Inquiry*, *Health Services Research, Health Affairs, Journal of the American Medical Association, New England Journal of Medicine, and others*

2008-2014 Associate Editor, Medical Care, Research and Review

1997-1998 Assistant Editor, Evidence-based Health Policy and Management

MAJOR RESEARCH INTERESTS:

1. Market-oriented health policy
2. Physician payment incentives
3. Consumerism and consumer-directed health plans
4. Economics of the pharmaceutical industry

RESEARCH SUPPORT:

Past Funding:

2013-2015 Understanding the Use and Impact of Price Data in Health Care, RWJF, *Co-Investigator*

2013-2015 Impact of Price Transparency Tools on Consumer Behavior, RWJF, *Co-Investigator*

2013-2015 Getting the Complete Picture: What does the Body of Research on the Patient-Centered Medical Home Really Tell us? CMWF, *Principal Investigator*

2013-2015 Prevalence and variation in over-use of health services in commercially insured patients, Peter G. Peterson Foundation, *Principal Investigator*

2013-2015 Measuring Overuse of Health Care: Are Providers and Patients 'Choosing Wisely'?, CMWF, *Co-investigator*

2012-2015 Evaluating Sequential Strategies to Reduce Readmission in Diverse Population, AHRQ, *Co-investigator*

2010-2014 Factors Associated with Effective Implementation of a Surgical Safety Checklist, AHRQ (R18), *Co-investigator*

2010-2014 A Randomized Trial of Behavioral Economic Interventions to Reduce CVD Risk, NIA (RC4), *Co-investigator*

2013-2014 Prevalence and variation in over-use of health services in Medicare: Choosing Wisely, RWJF, *Co-investigator*

2008-2010 Rewarding Quality Diabetes Management, RWJF/Hudson Health Plan, *Principal Investigator*

2008-2009 Effects of High-Deductible Health Plans on Families with Chronic Conditions, RWJF/Harvard Pilgrim Healthcare Plan, *Co-Investigator*

2008-2008 Implications of Value-Based Purchasing for Health Disparities: A Synthesis of the Evidence, Office of Minority Health, Department of Health & Human Services, *Principal Investigator*

2008-2008 Payment Reform Opportunities for Medicaid Programs, University of Pittsburgh, *Principal Investigator*

2007-2009 Changes in Health Care Financing and Organization: How does Fragmentation of Care Contribute to the Costs of Care? RWJF/HCFO, *Co-investigator*

2006-2008 Evaluating the Impact of a Novel Pay for Performance Program in a Medicaid Managed Care Plan, The Commonwealth Fund, *Principal Investigator*

2006-2008 Sloan Industry Studies Fellowship for Meredith Rosenthal, Alfred P. Sloan Foundation, *Principal Investigator*

2005-2008 Incentive Formularies and the Costs and Quality of Care, Agency for Healthcare Research and Quality, *Co-investigator*

2005-2007 Strategies to Improve the Value of Health Benefit Spending for Low-Wage Workers, The Commonwealth Fund, *Principal Investigator*

2005–2007 Uptake and Impact of Health Risk Appraisals, RWJ Health Care Financing and Organization Initiative, *Principal Investigator*

2003-2007 The Patterns and Impact of Value Based Purchasing, Agency for Healthcare Research and Quality, *Co-investigator*

2002-2007 Coverage, Organization of Care, and Colorectal Screening, National Institutes of Health, *Co-investigator*

Current Funding

2016-2017 Physician Payment in ACOs, Arnold Foundation, *Principal Investigator*

2016-2018 Generic Drug Pricing: Actionable Research for Policy, Commonwealth Fund, *Principal Investigator*

2015-2017 Improving the Value of Health Care Choices, Arnold Foundation, *Principal Investigator*

2015-2020 Accelerating the Use of Evidence-based Innovations in Healthcare Systems, AHRQ, *Principal Investigator*

2012-2017 Optimizing Ambulatory Patient Safety in Partnership with Primary Care Transformation, HMS Gift/CRICO, *Co-Principal Investigator*

TEACHING EXPERIENCE

2016- Health Policy and Management 260: Health Economics with Applications to Global Health Policy

2003-present Health Policy and Management 209: Economics for Health Policy

2013-2014 Global Health and Health Policy 50 (Harvard College): The Quality of Care in the United States

1999-2001 Health Policy and Management 507: Mental Health Economics and Policy in the United States

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Testimony within the Last Four Years

April Krueger v. Wyeth, Inc., United States District Court for the Southern District of California, Civil Action No. 03CV2496 JAH (AJB).

Health Net, Inc. v. Solvay Pharmaceuticals, Inc. and Unimed Pharmaceuticals, Inc., United States District Court for the Northern District of Georgia, Atlanta Division, Civil Action No. 1:11-CV-0334.

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In re: Celexa and Lexapro and Sales Practices Litigation, United Sstates District Court for the District of Massachusetts, Case No. 09-MD-2067 (NMG); MDL No. 2067.

In re: Nexium (esomeprazole) Antitrust Litigation, United States District Court for the District of Massachusetts, MDL No. 2409, Civil Action No. 112-cv-11711 and *In re: Nexium (esomeprazole) Antitrust Litigation*, United States District Court for the District of Massachusetts, MDL No. 2409.

In Re: Prograf Antitrust Litigation, United States District Court for the District of Massachusetts, MDL No. 2242, Master File No. 1:11-cv-2242-RWZ.

In re: Skelaxin (Metaxalone) Antitrust Litigation, The United States District Court for the Eastern District of Tennessee, Lead Case No. 2:12-cv-83, MDL. No. 2343.

Mary K. Jones v. Pfizer Inc., et al., United States District Court for the Southern District of New York, Civil Action No. 1:10-cv-03864-AKH.

Monica Barba and Jonathan Reisman, on behalf of themselves and all others similarly situated v. Shire U.S., Inc., et al., United States District Court of the Southern District of Florida, Case No. 1:13-21158-Civ-LENARD/GOODMAN.

Plumbers and Pipefitters Local 572 Health and Welfare Fund, et. al. v. Biovail Corporation, Biovail Laboratories, Inc., Biovail Laboratories International SRL, and Smithkline Beecham D/B/A Glaxosmithkline, PLC, United States District Court for the Eastern District of Pennsylvania, CA No. 08-CV-2433-MAM.

United States of America ex rel. Kevin N. Colquitt vs. Abbott Laboratories, United States District Court for the Northern District of Texas, Dallas Division, Civil Action No. 3:06-cv-01769-M.

United States of America vs. Solvay S.A., In the United States District Court for the Southern District of Texas, Civil Action No. 06-2662.

In re: Solodyn (Minocycline Hydrochloride) Antitrust Litigation (relating to all actions), MDL No. 2503, 1:14-MD-2503-DJC.